REMARKS

Applicant has carefully reviewed the office action mailed December 23, 2005 and offers the following remarks.

Before addressing the rejections based on the cited references, Applicant provides a brief summary of the present invention. The present invention is a scheduler for a data network that is designed to measure the rates at which all users are having units of data transmitted. These rates are then statistically analyzed and compared to required data rates. If many users are close to the required data rates, then it is an indication that the transmission medium is relatively congested and the present invention emphasizes fairness in those situations. If the users are above the required data rate, then it is an indication that the transmission medium is not congested. In such a circumstance, the present invention emphasizes maximizing throughput. The present invention makes prioritization decisions when scheduling data units for transmission in accordance with the tradeoffs enunciated above.

Applicant has previously amended independent claims 1, 10, 19, and 28 to recite that the data units are scheduled for transmission based on a prioritization factor such that *more emphasis is placed on fairness when many users are close to the required data rate and more emphasis is placed on maximizing throughput when all users are far from the required data rate*. The cited references fail to teach or suggest at least this limitation.

Claims 1, 10, 19, and 28 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl et al. (hereinafter "Bahl") in view of Ketcham and Rananand et al. (hereinafter "Rananand"). Applicant respectfully traverses

For the Patent Office to combine references in an obviousness rejection the Patent Office must do two things. First, the Patent Office must state a motivation to combine the references, and second, the Patent Office must support the stated motivation with actual evidence. *In re Dembiczak*, 175 F.3d 994, 999 (Fed. Cir. 1999). Once a proper combination is made, to establish *prima facie* obviousness, the Patent Office must show where each and every element is taught or suggested. MPEP § 2143.03.

The Patent Office has stated that Bahl and Ketcham fail to disclose a scheduling technique where *more emphasis is placed on fairness when many users are close to the required data rate and more emphasis is placed on maximizing throughput when all users are far from the*

required data rate. The Patent Office relies on Rananand to teach this limitation. In particular the Patent Office states that the following passage discloses this limitation:

> This service rate may differ as among the various connections, although for various ones of the connections being serviced by a switching node 11(*n*) the service rate guarantees may be similar or identical. *Other connections may be provided with a minimum service rate, in which case they will be ensured at least a specified minimum rate, but may be transferred faster when there is available transfer bandwidth above that required for the connections for which there is a service rate guarantee.* Rananand, col. 4, line 65 through col. 5, line 7, emphasis added.

Applicant respectfully traverses.

Even if the combination where proper, a point that Applicant does not concede, Rananand does not teach or suggest this limitation. In Rananand, the most pertinent passage, which is highlighted above, merely indicates that higher transfer rates are used when there is available bandwidth for connections, which are associated with a specified minimum rate. As such, anytime there is extra bandwidth the transfer rates may be increased for certain connections. This passage only relates to increasing throughput in general.

The limitation at issue has two primary parts where each part has one sub-part. The patent office has failed to address each of the parts and the corresponding sub-parts. One part is to a) maximize throughput b) *when all users are far from the required data rate*. Rananand does not increase data rate, let alone attempt to maximize throughput, *when all users are far from the required data rate*. As such, this part of the limitation is not taught or suggested.

The other part of the limitation is to a) place more emphasis on fairness b) when many users are close to the required data rate. Rananand does not teach or suggest emphasizing fairness, let alone emphasizing fairness when many users are close to the required data rate. The Patent Office cannot simply point to a passage that generally describes increasing transfer rates when extra bandwidth is available to show each of the following:

- placing more emphasis on fairness
- when many users are close to the required data rate, and
- placing more emphasis on maximizing throughput
- when all users are far from the required data rate.

The Patent Office has the burden of showing where each of these four aspects are taught or suggested in Rananand. Applicant contends that Rananand does not teach or suggest each of these aspects of the limitation at issue as claimed in independent claims 1, 10, 19, and 28. Since

the combination of Bahl, Ketcham, and Rananand do not collectively teach or suggest each and every element of independent claims 1, 10, 19, and 28, *prima facie* obviousness has not been established. As such, claims 1, 10, 19, and 28 define patentable subject matter.

Claims 8, 17, and 26 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl, Ketcham, and Rananand as applied to claims 1, 10, and 19, respectively. Applicant respectfully traverses. Claims 8, 17, and 26 further define the patentable subject matter of independent claims 1, 10, and 19, respectively. As such, claims 8, 17, and 26 also define patentable subject matter.

Claims 2, 11, and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl, Ketcham, and Rananand as applied to claims 1, 10, and 19, respectively, and further in view of Fawaz et al. (hereinafter "Fawaz") and Ganz et al. (hereinafter "Ganz"). Applicant respectfully traverses. Claims 2, 11, and 20 further define the patentable subject matter of independent claims 1, 10, and 19, respectively. Further, Fawaz and Ganz fail to cure the deficiencies of the combination of Bahl, Ketcham, and Rananand. As such, claims 2, 11, and 20 also define patentable subject matter.

Claims 3, 12, and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl, Ketcham, and Rananand as applied to claims 1, 10, and 19, respectively, and further in view of Liao et al. (hereinafter "Liao"). Applicant respectfully traverses. Claims 3, 12, and 21 further define the patentable subject matter of independent claims 1, 10, and 19, respectively. Further, Liao fails to cure the deficiencies of the combination of Bahl, Ketcham, and Rananand. As such, claims 3, 12, and 21 also define patentable subject matter.

Claims 4, 5, 13, 14, 22, and 23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl, Ketcham, and Rananand as applied to claims 1, 10, and 19, respectively, and further in view of Walton et al. (hereinafter "Walton"). Applicant respectfully traverses. Claims 4, 5, 13, 14, 22, and 23 further define the patentable subject matter of independent claims 1, 10, and 19, respectively. Further, Walton fails to cure the deficiencies of the combination of Bahl, Ketcham, and Rananand. As such, claims 4, 5, 13, 14, 22, and 23 also define patentable subject matter.

Claims 6, 15, and 24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl, Ketcham, Rananand, and Walton as applied to claims 5, 14, and 23, respectively. Applicant respectfully traverses. Claims 6, 15, and 24 further define the patentable subject matter of independent claims 1, 10, and 19, respectively. As noted, Walton fails to cure the deficiencies of the combination of Bahl, Ketcham, and Rananand. As such, claims 6, 15, and 24 also define patentable subject matter.

Claims 7, 16, and 25 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl, Ketcham, Rananand, and Walton as applied to claims 5, 14, and 23, respectively, and further in view of Kilkki et al. (hereinafter "Kilkki"). Applicant respectfully traverses. Claims 7, 16, and 25 further define the patentable subject matter of independent claims 1, 10, and 19, respectively. Further, Walton and Kilkki fail to cure the deficiencies of the combination of Bahl, Ketcham, and Rananand. As such, claims 7, 16, and 25 also define patentable subject matter.

Claims 9, 18, and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Bahl, Ketcham, and Rananand as applied to claims 1, 10, and 27, respectively, and further in view of Fawaz and Walton. Applicant respectfully traverses. Claims 9, 18, and 27 further define the patentable subject matter of independent claims 1, 10, and 19, respectively. As previously noted, Fawaz and Walton fail to cure the deficiencies of the combination of Bahl, Ketcham, and Rananand. As such, claims 9, 18, and 27 also define patentable subject matter.

The present application is now in condition for allowance and such action is respectfully requested. The Examiner is encouraged to contact Applicant's representative regarding any remaining issues in an effort to expedite allowance and issuance of the present application.

CERTIFICATE OF TRANSMISSION
I HEREBY CERTIFY THAT THIS DOCUMENT IS BEING TRANSMITTED VIA FACSIMILE ON THE DATE INDICATED BELOW TO:

Examiner: Meucci, Michael D. Art Unit: 2142
Fax: 571-273-8300

Michelle Heymann
Name of Sender

Michelle Heymann
Signature

3-23-06
Date of Transmission

Respectfully submitted,
WITHROW & TERRANOVA, P.L.L.C.

By:

Benjamin S. Withrow
Registration No. 40,876
P.O. Box 1287
Cary, NC 27512
Telephone: (919) 654-4520

Date: March 23, 2006
Attorney Docket: 7000-114